



Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

04/21/25

68K24

72(7-9)L

Peoria

Marked Route Number

Municipality

I-74 - Ramp G4 Tunnel - Daytime Lighting

Peoria

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

16

1 lane in one direction

NA

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

15.25

NA

5

NA

Luminaire

Description

Transverse Distribution

Lateral Distribution

Tunnel Luminaire **1** - Lumen Output \leq 22,000

Type III

Short

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

0.65

NA

NA

0-10V

Layout

Spacing

Configuration

3ft

Opposite

Performance (see notes 5 and 6)

Average Illuminance, E_{AVE} (fc)

Uniformity Ratio, E_{AVE}/E_{MIN}

N/A

N/A

Average Luminance, L_{AVE} (cd/m²)

Uniformity Ratio, L_{AVE}/L_{MIN}

Uniformity Ratio, L_{MAX}/L_{MIN}

Veiling Luminance Ratio, L_v/L_{AVE}

\geq 100

\leq 2.0

\leq 3.5

\leq 0.2

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_v

NA

N/A

N/A

- Notes
1. Set-Back is from Edge of Pavement (white line).

2. Lighting calculations shall be performed with all luminaires oriented toward and perpendicular to the roadway.

3. Performance requirements shall be the minimum acceptable standards of photometric performance for the luminaire, based on the given conditions listed above.

4. Lane width is the width of each **individual** lane, not to be confused with total roadway width.

5. Compliance with performance criteria shall be held to one significant digit.

6. Photometric calculations for roadways shall be performed with a total light loss factor of 0.7

7. Light trespass calculations shall be performed with a total light loss factor of 1.0 and with horizontal calculations performed at grade and vertical calculations performed with calculation points located three feet above grade.

8. Luminaire performance table is intended to define the luminaire and does not necessarily match any specific roadway geometry, mounting height, setback, or arm length.
- Delete Note 6. Tunnel Lighting Calculations Parameters: Approximate tunnel height=16ft; tunnel width=28.5ft; tunnel length= 290ft



Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

04/21/25

68K24

72(7-9)L

Peoria

Marked Route Number

Municipality

I-74 - Ramp G4 Tunnel - Nighttime Lighting

Peoria

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

16

1 lane in one direction

NA

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

15.25

NA

5

NA

Luminaire

Description

Transverse Distribution

Lateral Distribution

Tunnel Luminaire **2** - Lumen Output \leq 7,500

Type III

Short

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

0.65

NA

NA

0-10V

Layout

Spacing

Configuration

30ft

Opposite

Performance (see notes 5 and 6)

Average Illuminance, E_{AVE} (fc)

Uniformity Ratio, E_{AVE}/E_{MIN}

N/A

N/A

Average Luminance, L_{AVE} (cd/m²)

Uniformity Ratio, L_{AVE}/L_{MIN}

Uniformity Ratio, L_{MAX}/L_{MIN}

Veiling Luminance Ratio, L_v/L_{AVE}

\geq 2.5

\leq 2.0

\leq 3.5

\leq 0.2

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_v

NA

N/A

N/A

- Notes
1. Set-Back is from Edge of Pavement (white line).

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8. Luminaire performance table is intended to define the luminaire and does not necessarily match any specific roadway geometry, mounting height, setback, or arm length.
- Delete Note 6. Tunnel Lighting Calculations Parameters: Approximate tunnel height=16ft; tunnel width=28.5ft; tunnel length= 290ft



Luminaire Performance Table

Project

Date

Contract Number

Section Number

County

07/14/25

68K24

72(7-9)L

Peoria

Marked Route Number

Municipality

I-74

Peoria

Roadway

Lane Width (see note 4)

Number and Direction of lanes

Median Width

Surface Classification

Q-Zero Value

12 FT

2 LANES IN 1 DIRECTION

N/A

R3

0.07

Structure

Mounting Height

Arm Length

Set-Back (see note 1)

Number of Luminaires

22 FT

N/A

0 FT

N/A

Luminaire

Description

Transverse Distribution

Lateral Distribution

UNDERPASS, LED, OUTPUT D

TYPE III

Medium

Total Light Loss Factor (LLF)

B-U-G Rating

Shields

Dimming Protocol

Refer to Notes 6 and 7

U=0

N/A

0-10V

Layout

Spacing

Configuration

70 FT

Single Sided

Performance (see notes 5 and 6)

Average Illuminance, E_{AVE} (fc)

Uniformity Ratio, E_{AVE}/E_{MIN}

N/A

N/A

Average Luminance, L_{AVE} (cd/m²)

Uniformity Ratio, L_{AVE}/L_{MIN}

Uniformity Ratio, L_{MAX}/L_{MIN}

Veiling Luminance Ratio, L_v/L_{AVE}

\geq 0.8

\leq 3.5:1

\leq 6:1

\leq 0.3:1

Light Trespass (see notes 5 and 7)

Distance to ROW (behind pole)

Max. Horizontal Illuminance at ROW, E_H

Max. Vertical Illuminance at ROW, E_v

N/A

N/A

N/A

- Notes
1. Set-Back is from Edge of Pavement (white line).

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USER NAME = \$USERS	DESIGNED -	REVISED -
DRAWN -	REVIS	ED -
PLOT SCALE = \$SCALE\$	CHECKED -	REVISED -
PLOT DATE = \$DATES	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

LUMINAIRE PERFORMANCE TABLES
I-74 WB RAMP G4 TUNNEL AND UNDERPASSES

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	72(7-9)L	PEORIA	34	34
			CONTRACT NO. 68K24	
			ILLINOIS FED. AID PROJECT	